

SEQUENCE LISTING

<110> Baker, Brenda
 Bennett, C. Frank
 Butler, Madeline M.
 Shanahan, William R.

<120> ANTISENSE OLIGONUCLEOTIDE MODULATION OF TNF- EXPRESSION

<130> ISPH-0501

<140>
 <141>

<150> US 09/313,932
 <151> 1999-05-18

<150> US 09/166,186
 <151> 1998-10-05

<160> 503

<210> 1
 <211> 3634
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (796..981,1589..1634,1822..1869,2171..2592)

<220>
 <221> exon
 <222> (615)..(981)

<220>
 <221> intron
 <222> (982)..(1588)

<220>
 <221> exon
 <222> (1589)..(1634)

<220>
 <221> intron
 <222> (1635)..(1821)

 <220>
 <221> exon
 <222> (1822)..(1869)

 <220>
 <221> intron
 <222> (1870)..(2070)

 <220>
 <221> exon
 <222> (2171)..(3381)

 <300>
 <301> Nedwin, G.E.
 Naylor, S.L.
 Sakaguchi, A.Y.
 Smith, D.
 Jarrett-Nedwin, J.
 Pennica, D.
 Goeddel, D.V.
 Gray, P.W.
 <302> Human lymphotoxin and tumor necrosis factor genes: structure,
 homology and chromosomal localization
 <303> Nucleic Acids Res.
 <304> 13
 <305> 17
 <306> 6361-6373
 <307> 1985-09-11
 <308> X02910 Genbank
 <309> 1997-02-17

 <400> 1

gaattccggg tgatttcact cccggctgtc caggcttgct ctgctacccc acccagcctt 60

tcttgaggcc tcaagcctgc caccaagccc ccagctcctt ctccccgcag gacccaaaca 120

caggcctcag gactcaacac agcttttccc tccaacccgt tttctctccc tcaacggact 180
cagctttctg aagccccctcc cagttctagt tctatctttt tcttgcaccc tgtctggaag 240
ttagaaggaa acagaccaca gacctggtcc ccaaaagaaa tggaggcaat aggttttgag 300
gggcatgggg acgggggttca gcctccaggg tcctacacac aaatcagtca gtggcccaga 360
agacccccct cggaatcgga gcaggaggga tggggagtgt gaggggtatc cttgatgctt 420
gtgtgtcccc aactttccaa atccccgccc ccgcgatgga gaagaaaccg agacagaagg 480
tgcaggggccc actaccgctt cctccagatg agtcatggg tttctccacc aaggaagttt 540
tccgctgggtt gaatgattct ttccccgccc tcctctcgcc ccaggggacat ataaaggcag 600
ttgttggcac acccagccag cagacgctcc ctgagcaagg acagcagagg accagctaag 660
agggagagaa gcaactacag accccccctg aaaacaaccc tcagacgcca catccccctga 720
caagctgcca ggcagggttct cttcctctca catactgacc cacgggttca ccctctctcc 780
cctggaaagg acacc atg agc act gaa agc atg atc cgg gac gtg gag ctg 831
Met Ser Thr Glu Ser Met Ile Arg Asp Val Glu Leu
1 5 10
gcc gag gag gcg ctc ccc aag aag aca ggg ggg ccc cag ggc tcc agg 879
Ala Glu Glu Ala Leu Pro Lys Lys Thr Gly Gly Pro Gln Gly Ser Arg
15 20 25
cgg tgc ttg ttc ctc agc ctc ttc tcc ttc ctg atc gtg gca ggc gcc 927
Arg Cys Leu Phe Leu Ser Leu Phe Ser Phe Leu Ile Val Ala Gly Ala
30 35 40
acc acg ctc ttc tgc ctg ctg cac ttt gga gtg atc ggc ccc cag agg 975
Thr Thr Leu Phe Cys Leu Leu His Phe Gly Val Ile Gly Pro Gln Arg
45 50 55 60
gaa gag gtgagtgcct ggccagcctt catccactct cccacccaag gggaaatgag 1031
Glu Glu
agacgcaaga gagggagaga gatgggatgg gtgaaagatg tgcgctgata gggaggggatg 1091

agagagaaaa aaacatggag aaagacgggg atgcagaaag agatgtggca agagatgggg 1151
 aagagagaga gagaaagatg gagagacagg atgtctggca catggaaggt gctcactaag 1211
 tgtgtatgga gtgaatgaat gaatgaatga atgaacaagc agatatataa ataagatatg 1271
 gagacagatg tgggggtgtga gaagagagat gggggaagaa acaagtgata tgaataaaga 1331
 tgggtgagaca gaaagagcgg gaaatatgac agctaaggag agagatgggg gagataagga 1391
 gagaagaaga taggggtgtct ggcacacaga agacactcag ggaaagagct gttgaatgct 1451
 ggaaggtgaa tacacagatg aatggagaga gaaaaccaga cacctcaggg ctaagagcgc 1511
 aggccagaca ggcagccagc tgttcctcct ttaaggggtga ctccctcgat gttaaccatt 1571
 ctccttctcc ccaacag ttc ccc agg gac ctc tct cta atc agc cct ctg 1621
 Phe Pro Arg Asp Leu Ser Leu Ile Ser Pro Leu
 65 70
 gcc cag gca gtc agtaagtgtc tccaaacctc tttcctaatt ctggggttgg 1673
 Ala Gln Ala Val
 75
 gtttgggggt aggggttagta ccggtatgga agcagtgggg gaaatttaaa gttttggtct 1733
 tgggggagga tggatggagg tgaaagtagg ggggtatttt ctaggaagtt taagggtctc 1793
 agctttttct tttctctctc ctcttca gga tca tct tct cga acc ccg agt gac 1847
 Arg Ser Ser Ser Arg Thr Pro Ser Asp
 80 85
 aag cct gta gcc cat gtt gta ggtaagagct ctgaggatgt gtcttgaac 1898
 Lys Pro Val Ala His Val Val
 90
 ttggagggct aggatttggg gattgaagcc cggctgatgg taggcagaac ttggagacaa 1958
 tgtgagaagg actcgtgag ctcaaggga ggggtggagga acagcacagg ccttagtggg 2018
 atactcagaa cgtcatggcc aggtgggatg tgggatgaca gacagagagg acaggaaccg 2078
 gatgtgggggt gggcagagct cgagggccag gatgtggaga gtgaaccgac atggccacac 2138

tgactctcct ctccctctct cctccctcc a gca aac cct caa gct gag ggg	2190
Ala Asn Pro Gln Ala Glu Gly	
95 100	
cag ctc cag tgg ctg aac cgc cgg gcc aat gcc ctc ctg gcc aat ggc	2238
Gln Leu Gln Trp Leu Asn Arg Arg Ala Asn Ala Leu Leu Ala Asn Gly	
105 110 115	
gtg gag ctg aga gat aac cag ctg gtg gtg cca tca gag ggc ctg tac	2286
Val Glu Leu Arg Asp Asn Gln Leu Val Val Pro Ser Glu Gly Leu Tyr	
120 125 130	
ctc atc tac tcc cag gtc ctc ttc aag ggc caa ggc tgc ccc tcc acc	2334
Leu Ile Tyr Ser Gln Val Leu Phe Lys Gly Gln Gly Cys Pro Ser Thr	
135 140 145	
cat gtg ctc ctc acc cac acc atc agc cgc atc gcc gtc tcc tac cag	2382
His Val Leu Leu Thr His Thr Ile Ser Arg Ile Ala Val Ser Tyr Gln	
150 155 160	
acc aag gtc aac ctc ctc tct gcc atc aag agc ccc tgc cag agg gag	2430
Thr Lys Val Asn Leu Leu Ser Ala Ile Lys Ser Pro Cys Gln Arg Glu	
165 170 175 180	
acc cca gag ggg gct gag gcc aag ccc tgg tat gag ccc atc tat ctg	2478
Thr Pro Glu Gly Ala Glu Ala Lys Pro Trp Tyr Glu Pro Ile Tyr Leu	
185 190 195	
gga ggg gtc ttc cag ctg gag aag ggt gac cga ctc agc gct gag atc	2526
Gly Gly Val Phe Gln Leu Glu Lys Gly Asp Arg Leu Ser Ala Glu Ile	
200 205 210	
aat cgg ccc gac tat ctc gac ttt gcc gag tct ggg cag gtc tac ttt	2574
Asn Arg Pro Asp Tyr Leu Asp Phe Ala Glu Ser Gly Gln Val Tyr Phe	
215 220 225	
ggg atc att gcc ctg tga ggaggacgaa catccaacct tcccaaacgc	2622
Gly Ile Ile Ala Leu	
230	
ctccctgcc ccaatccctt tattaccccc tcttcagac accctcaacc tcttctgget	2682
caaaaagaga attgggggct tagggctcgga acccaagctt agaactttaa gcaacaagac	2742
caccacttcg aaacctggga ttcaggaatg tgtggcctgc acagtgaagt gctggcaacc	2802

actaagaatt caaactgggg cctccagaac tcaactggggc ctacagcttt gatccctgac 2862
 atctggaatc tggagaccag ggagcctttg gttctggcca gaatgctgca ggacttgaga 2922
 agacctcacc tagaaattga cacaagtgga ccttaggcct tcctctctcc agatgtttcc 2982
 agacttcctt gagacacgga gccagccct ccccatggag ccagctccct ctatttatgt 3042
 ttgcacttgt gattatttat tatttattta ttatttattt atttacagat gaatgtattt 3102
 atttgggaga cgggggtatc ctgggggacc caatgtagga gctgccttgg ctcagacatg 3162
 ttttccgtga aaacggagct gaacaatagg ctgttcccat gtagccccct ggctctgtg 3222
 ccttcttttg attatgtttt ttaaaatatt tatctgatta agttgtctaa acaatgctga 3282
 tttggtgacc aactgtcact cattgctgag cctctgctcc ccaggggagt tgtgtctgta 3342
 atcgccctac tattcagtgg cgagaaataa agtttgctta gaaaagaaac atgggtctcct 3402
 tcttgggaatt aattctgcat ctgcctcttc ttgtgggtgg gaagaagctc cctaagtcct 3462
 ctctccacag gctttaagat ccctcggacc cagtcccatc cttagactcc tagggccctg 3522
 gagaccctac ataaacaaag cccaacagaa tattccccat cccccaggaa acaagagcct 3582
 gaaccttaatt acctctccct cagggcatgg gaatttccaa ctctgggaat tc 3634

<210> 2
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 2
 catgctttca gtgctcat 18

<210> 3
 <211> 20
 <212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 3

tgagggagcg tctgctggct

20

<210> 4

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 4

gtgctcatgg tgcctttcc

20

<210> 5

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 5

taatcacaag tgcaaacata

20

<210> 6

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 6

taccccggtc tcccaaataa

20

<210> 7

<211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic
 <400> 7

agcaccgcct ggagccct 18

<210> 8
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 8
 gctgaggaac aagcaccgcc 20

<210> 9
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 9
 aggcagaaga gcgtggtggc 20

<210> 10
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 10
 aaagtgcagc aggcagaaga 20

<210>	11	
<211>	18	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	11	
	ttagagagag gtccctgg	18
<210>	12	
<211>	18	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	12	
	tgactgcctg ggccagag	18
<210>	13	
<211>	18	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	13	
	gggttcgaga agatgatc	18
<210>	14	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	14	

gggctacagg cttgtcactc

20

<210> 15

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 15

cccctcagct tgaggggttg

20

<210> 16

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 16

ccattggcca ggagggcatt

20

<210> 17

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 17

accaccagct ggttatctct

20

<210> 18

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400>	18	
ctgggagtag atgaggtaca		20
<210>	19	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	19	
cccttgaaga ggacctggga		20
<210>	20	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	20	
ggtgtgggtg aggagcacat		20
<210>	21	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	21	
gtctggtagg agacggcgat		20
<210>	22	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		

<223>	Synthetic	
<400>	22	
gcagagagga	ggttgacctt	20
<210>	23	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	23	
gcttggcctc	agccccctct	20
<210>	24	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	24	
cctcccagat	agatgggctc	20
<210>	25	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	25	
cccttctcca	gctggaagac	20
<210>	26	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	

<220>		
<223>	Synthetic	
<400>	26	
atctcagcgc	tgagtcggtc	20
<210>	27	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	27	
tcgagatagt	cgggccgatt	20
<210>	28	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	28	
aagtagacct	gcccagactc	20
<210>	29	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	29	
ggatgttcgt	cctcctcaca	20
<210>	30	
<211>	20	
<212>	DNA	

<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	30	
	accctaagcc cccaattctc	20
<210>	31	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	31	
	ccacacattc ctgaatccca	20
<210>	32	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	32	
	aggccccagt gagttctgga	20
<210>	33	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	33	
	gtctccagat tccagatgtc	20
<210>	34	

<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	34	
ctcaagtccct	gcagcattct	20
<210>	35	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	35	
tgggtccccc	aggatacccc	20
<210>	36	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	36	
acggaaaaca	tgtctgagcc	20
<210>	37	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	37	
ctccgttttc	acggaaaaca	20

<210>	38	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	38	
gcctattggt	cagctccgtt	20
<210>	39	
<211>	21	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	39	
ggtcaccaaaa	tcagcattgt t	21
<210>	40	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	40	
gaggctcagc	aatgagtgac	20
<210>	41	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	control sequence	
<400>	41	

gccaagctg gcatccgtca 20

<210> 42
<211> 21
<212> DNA
<213> Artificial Sequence
<220>
<223> control sequeence

<400> 42
gccgaggtcc atgtcgtacg c 21

<210> 43
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer

<400> 43
caggcggtgc ttgttcct 18

<210> 44
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer

<400> 44
gccagagggc tgattagaga ga 22

<210> 45
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR probe

<400> 45
 cttctccttc ctgatcgtgg caggc 25

 <210> 46
 <211> 19
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR primer

 <400> 46
 gaaggtgaag gtcggagtc 19

 <210> 47
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR primer

 <400> 47
 gaagatggtg atgggatttc 20

 <210> 48
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR probe

 <400> 48
 caagcttccc gttctcagcc 20

 <210> 49
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>

<223>	control sequence	
<400>	49	
tctgagtagc	agaggagctc	20
<210>	50	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	50	
tgcgtctctc	atttcccctt	20
<210>	51	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	51	
tcccatctct	ctccctctct	20
<210>	52	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	52	
cagcgacat	ctttcaccca	20
<210>	53	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	

<220>		
<223>	Synthetic	
<400>	53	
tctctctcat	ccctccctat	20
<210>	54	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	54	
cgtctttctc	catgtttttt	20
<210>	55	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	55	
cacatctctt	tctgcatccc	20
<210>	56	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	56	
ctctcttccc	catctcttgc	20
<210>	57	
<211>	20	
<212>	DNA	

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 57

gtctctccat ctttccttct 20

<210> 58

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 58

ttccatgtgc cagacatcct 20

<210> 59

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 59

atacacactt agtgagcacc 20

<210> 60

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 60

ttcattcatt cattcactcc 20

<210> 61

<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	61	
tatatctgct	tgttcattca	20
<210>	62	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	62	
ctgtctccat	atcttattta	20
<210>	63	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	63	
tctcttctca	cacccacat	20
<210>	64	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	64	
cacttgtttc	ttcccccatc	20

<210>	65	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	65	
ctcaccatct	ttattcatat	20
<210>	66	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	66	
atatttcccg	ctctttctgt	20
<210>	67	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	67	
catctctctc	cttagctgtc	20
<210>	68	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	68	
tcttctctcc	ttatctcccc	20

<210> 69
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 69
gtgtgccaga caccctatct 20

<210> 70
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 70
tctttccctg agtgtcttct 20

<210> 71
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 71
accttccagc attcaacagc 20

<210> 72
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400>	72	
ctccattcat	ctgtgtattc	20
<210>	73	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	73	
tgagggtgtct	ggttttctct	20
<210>	74	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	74	
acacatcctc	agagctctta	20
<210>	75	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	75	
ctagccctcc	aagttccaag	20
<210>	76	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		

<223>	Synthetic	
<400>	76	
cgggcttcaa tccccaaatc		20
<210>	77	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	77	
aagttctgcc taccatcagc		20
<210>	78	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	78	
gtccttctca cattgtctcc		20
<210>	79	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	79	
ccttcccttg agctcagcga		20
<210>	80	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	

<220>		
<223>	Synthetic	
<400>	80	
ggcctgtgct	gttcctccac	20
<210>	81	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	81	
cgttctgagt	atcccactaa	20
<210>	82	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	82	
cacatccac	ctggccatga	20
<210>	83	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	83	
gtcctctctg	tctgtcatcc	20
<210>	84	
<211>	20	
<212>	DNA	

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 84

ccaccccaca tccggttcct

20

<210> 85

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 85

tcttgccct cgagctctgc

20

<210> 86

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 86

atgtcggttc actctccaca

20

<210> 87

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 87

agaggagagt cagtgtggcc

20

<210> 88

<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	88	
gatcccaaag tagacctgcc		20
<210>	89	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	89	
cagactcggc aaagtcgaga		20
<210>	90	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	90	
tagtcggggc gattgatctc		20
<210>	91	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	91	
agcgctgagt cggtcaccct		20

<210>	92	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	92	
tctccagctg	gaagaccct	20
<210>	93	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	93	
cccagataga	tgggctcata	20
<210>	94	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	94	
ccagggttg	gcctcagccc	20
<210>	95	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	95	
cctctggggt	ctccctctgg	20

<210>	96	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	96	
caggggctct	tgatggcaga	20
<210>	97	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	97	
gaggaggttg	accttggctct	20
<210>	98	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	98	
ggtaggagac	ggcgatgcgg	20
<210>	99	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	

<400>	99	
ctgatggtgt	gggtgaggag	20
<210>	100	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	100	
aggcactcac	ctcttccttc	20
<210>	101	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	101	
ccctggggaa	ctgttgggga	20
<210>	102	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	102	
agacacttac	tgactgcctg	20
<210>	103	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		

<223>	Synthetic	
<400>	103	
	gaagatgata ctgaagagga	20
<210>	104	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	104	
	gagctcttac ctacaacatg	20
<210>	105	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	105	
	tgaggggttg ctggaggag	20
<210>	106	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	control sequence	
<400>	106	
	gatcggtcg gactatgaag	20
<210>	107	
<211>	7208	
<212>	DNA	
<213>	Mus musculus	

<220>
 <221> CDS
 <222> (4527..4712,5225..5279,5457..5504,5799..6217)

 <220>
 <221> exon
 <222> (4371)..(4712)

 <220>
 <221> intron
 <222> (4713)..(5224)

 <220>
 <221> exon
 <222> (5225)..(5279)

 <220>
 <221> intron
 <222> (5280)..(5456)

 <220>
 <221> exon
 <222> (5457)..(5504)

 <220>
 <221> intron
 <222> (5505)..(5798)

 <220>
 <221> exon
 <222> (5799)..(>6972)

 <300>
 <301> Semon, D.
 Kawashima, E.
 Jongeneel, C.V.
 Shakhov, A.N.
 Nedospasov, S.A.
 <302> Nucleotide sequence of the murine TNF locus, including the
 TNF-alpha (tumor necrosis factor) and TNF-beta (lymphotoxin)
 genes

<303> Nucleic Acids Res.
 <304> 15
 <305> 21
 <306> 9083-9084
 <307> 1987-11-11
 <308> Y00467 Genbank
 <309> 1993-05-11

<400> 107
 gaattctgaa gctccctctg tacagagcat tggaagcctg ggggtgtacat ttgggggttac 60
 atgatcttgg ggttctaaga gaataccccc aaatcatctt ccagacctgg aacattctag 120
 gacagggttc tcaaccttcc taactccatg accctttaat acagtctctc atgttgtggg 180
 gacccaacc atacaattat tttcgttgct atttcataac tgtaatttcg ctgctattat 240
 gaatcataat gtaaatatctt gttttaaata gaggtttgcc aaagggacct tgcccacagg 300
 ttgagaactg ccgctccaga gagtaagggg acacagttaa gattgttaca caccaggatg 360
 cccagattt ggggagaggg cactgtaatg gaacttcttg acatgaaact ggcagatgaa 420
 actggcagaa aaaaaaaaaa aagctgggca gtggtggcac acacctttaa tcccagcact 480
 tgggaggcag aggcaggcgg atttctgagt tctaggccag cctggtctac agagtgagtt 540
 tcaggacagc cagggtctaca cagagaaacc ctgtctcgaa aaaagcaaaa aaaaaaaaaa 600
 aaaaaaaaaa aaactggcag atgaccagaa aatacagata tattggaata actgtgactt 660
 gaacccccaa agacaagaga ggaaataggc ctgaaggggc ggcaggcatg tcaagcatcc 720
 agagccctgg gttcgaacct gaaaaaaca aggtgccgct aaccacatgt ggcttcggag 780
 ccctccagac atgaccatga tcgacagaga gggaaatgtg cagagaagcc tgtgagcagt 840
 caagggtgca gaagtgatat aaaccatcac tcttcaggga accaggcttc cagtcacagc 900
 ccagctgcac cctctccacg aattgctcgg ccgttcactg gaactcctgg gcctgacca 960
 gctccctgct agtccctgcg gccacagtt ccccgaccc gactcccttt ccagaaacgc 1020

agtagtctaa gcccttagcc tgcgggttctc tcctagggcc cagcctttcc tgccttcgac 1080
 tgaaacagca gcatcttcta agccctgggg gcttcccca gcccagccc cgacctagaa 1140
 cccgcccgt gcctgccaca ctgccgttc ctctataaag ggacccgagc gccagcgccc 1200
 aggaccccg acagcaggtg agcctctct accctgtctc cttgggctta ccctgggtatc 1260
 aggcattccct caggatccta cctcctttct tgagccacag ctttttctat acaacctgcc 1320
 tggatcccca gccttaatgg gtctgggtcct cctgtcgtgg ctttgatttt tgggtctgttc 1380
 ctgtggcggc cttatcagtc tctctctctc tctctctctc tctctctctc tctctctctc 1440
 tctctctctc tctccctctc tctctctctc tctctctctc ttctctctct ctgcctctgt 1500
 tagccattgt ctgattctat ggtggagctt tcctcttccc ctctgtctct ccttatccct 1560
 gctcacttca gggttccct gcctgtcccc tttctgtct gtcgccctgt ctctcagggt 1620
 ggctgtctca gctgggaggt aaggctctgt ttccgctgtg tgccccgcct ccgctacaca 1680
 cacacactct ctctctctct ctccagcaggt tctccacatg aactgctcg gccgtctcca 1740
 cctcttgagg gtgcttgcca cccctcctgt ctctctctg gggctgctgc tggccctgcc 1800
 tctagggggc caggtgaggc agcaagagat tgggggtgct ggggtggcct agctaactca 1860
 gagtctaga gtctctcca ctctctctg tcccaggga tctctggtgt ccgcttctcc 1920
 gctgccagga cagcccatcc actccctcag aagcaattga cccatggcat cctgaaacct 1980
 gctgctcacc ttgttggtaa acttctgcct ccagaggaga ggtccagtcc ctgccttttg 2040
 tcctacttgc ccaggggctc aggcgatctt cccatctccc cacaccaact tttcttacc 2100
 ctaagggcag gcacccact cccatctccc taccaacct cccacttgct cagtgcctgc 2160
 tcctcagga tggggacctc tgatcttgat agcccccaa tgtcttgctc ctcttcccag 2220
 ggtacccag caagcagaac tcaactgctc ggagagcaag cacggatcgt gcctttctcc 2280

gacatggctt ctctttgagc aacaactccc tctgatccc caccagtggc ctctactttg 2340
tctactccca ggtgggtttt tctggagaaa gctgctcccc cagggccatt cccactccca 2400
tctacctggc acacgaggtc cagctctttt cctcccaata ccccttccat gtgcctctcc 2460
tcagtgcgca gaagtctgtg tatccgggac ttcaaggacc gtgggtgcgc tcaatgtacc 2520
agggggctgt gttcctgctc agtaaggag accagctgtc caccacacc gacggcatct 2580
cccatctaca cttcagcccc agcagtgtat tctttggagc ctttgactg tagattctaa 2640
agaaacccaa gaattggatt ccaggcctcc atcctgaccg ttgtttcaag ggtcacatcc 2700
ccacagtctc cagccttccc cactaaaata acctggagct ctcacgggag tctgagacac 2760
ttcaggggac tacatcttcc ccagggccac tccagatgct caggggacga ctcaagccta 2820
cctagaagtt cctgcacaga gcagggtttt tgtgggtcta ggtcggacag agacctggac 2880
atgaaggagg gacagacatg ggagaggtgg ctgggaacag ggaaggttg actatttatg 2940
gagagaaaag ttaagttatt tatttataga gaatagaaag aggggaaaaa tagaaagccg 3000
tcagatgaca actaggtccc agacacaaag gtgtctcacc tcagacagga cccatctaag 3060
agagagatgg cgagagaatt agatgtgggt gaccaagggg ttctagaaga aagcacgaag 3120
ctctaaaagc cagccactgc ttggctagac atccacaggg acccctgca ccatctgtga 3180
aaccaataa acctctttt tctgagattc tgtctgcttg tgtctgtctt gcgttggggg 3240
agaaacttcc tggctctttt aaggagtgga gcaggggaca gaggcctcag ttggtccatg 3300
ggatccgggc agagcaaaga gacatgagga gcaggcagct cccagagaca tgggtggattc 3360
acgggagtga ggcagcttaa ctgccgagag acccaaagga tgagctaggg agatccatcc 3420
aagggtggag agagatgagg gttctgggga gaagtgactc cactggaggg tgggagagtg 3480
tttaggagtg ggagggtggg ggaggggaat ccttggaaga ccggggagtc atacggattg 3540

ggagaaatcc tggagcagg gctgtgggac ctaaattgtct gagttgatgt accgcagtca 3600
 agatatggca gaggtccgt ggaaaactca cttgggagca gggacccaaa gcagcagcct 3660
 gagctcatga tcagagtgaaggagaggc ttgtgaggtc cgtgaattcc cagggctgag 3720
 ttcatccct ctgggtgcc ccatactcat ccattaccc ccccaccag ccctccaaa 3780
 gccatgcac acttccaac tctcaagctg ctctgccttc agccacttc tccaagaact 3840
 caaacagggg gctttccctc ctcaatatca tgtctcccc cttatgcacc cagctttcag 3900
 aagcaccccc ccatgctaag ttctccccc tggatgtccc atttagaaat caaaaggaaa 3960
 tagacacagg catggtcttt ctacaaagaa acagacaatg attagctctg gaggacagag 4020
 aagaaatggg tttcagttct cagggtccta tacaacacac acacacacac acacacacac 4080
 acacacacac acacaccctc ctgattggcc ccagattgcc acagaatcct ggtggggacg 4140
 acgggggaga gattccttga tgctgggtg tccccactt tccaaacct ctgccccgc 4200
 gatggagaag aaaccgagac agaggtgtag ggccactacc gcttctcca catgagatca 4260
 tggttttctc caccaaggaa gttttccgag gggtgaatga gagcttttcc ccgccctctt 4320
 cccaagggc tataaaggcg gccgtctgca cagccagcca gcagaagctc cctcagcgag 4380
 gacagcaagg gactagccag gagggagaac agaaactcca gaacatcttg gaaatagctc 4440
 ccagaaaagc aagcagccaa ccaggcaggt tctgtccctt tcaactactg gcccaaggcg 4500
 ccacatctcc ctccagaaaa gacacc atg agc aca gaa agc atg atc cgc gac 4553
 Met Ser Thr Glu Ser Met Ile Arg Asp

1

5

gtg gaa ctg gca gaa gag gca ctc ccc caa aag atg ggg ggc ttc cag 4601
 Val Glu Leu Ala Glu Glu Ala Leu Pro Gln Lys Met Gly Gly Phe Gln
 10 15 20 25
 aac tcc agg cgg tgc cta tgt ctc agc ctc ttc tca ttc ctg ctt gtg 4649
 Asn Ser Arg Arg Cys Leu Cys Leu Ser Leu Phe Ser Phe Leu Leu Val

gca ggg gcc acc acg ctc ttc tgt cta ctg aac ttc ggg gtg atc ggt 4697
 Ala Gly Ala Thr Thr Leu Phe Cys Leu Leu Asn Phe Gly Val Ile Gly
 45 50 55

ccc caa agg gat gag gtgagtgtct gggcaaccct tattctcgct cacaagcaaa 4752
 Pro Gln Arg Asp Glu
 60

acgggttagg agggcaagaa ggacagtgtg agggaaagaa gtgggctaata gggcagggca 4812

aggtggagga gagtgtggag gggacagagt caggacctcg gacctatgag tccagctgac 4872

taaacatcct tcgtcggatg cacagagaga tgaatgaacg aacaagtgtg ttcacacgtg 4932

gagagatctg gaaagatgtg gccaggggaa gaggggataa gcaagagata aaactcagag 4992

acagaaatga gagaggcatg agagataagg aggaagatga aggggagata acgggagatc 5052

aagcacagag ggcaccgcag aaagaagccg tgggttgagc agatgaatga atgaagaaga 5112

aaacacaaaag tggggggtgg gtggggcaaa gaggaactgt aagcggggca atcagccggg 5172

agcttctcct ttgggtgag tctgtcttaa ctaacctcct tttctacac ag aag ttc 5230
 Lys Phe

cca aat ggc ctc cct ctc atc agt tct atg gcc cag acc ctc aca ctc 5278
 Pro Asn Gly Leu Pro Leu Ile Ser Ser Met Ala Gln Thr Leu Thr Leu
 65 70 75 80

agtaagtgtt cccacacctc tctcttaatt taagatggag aagggcagtt aggcattgga 5338
 Arg

tgagatgggg tggggggaaa acttaaagct ttggtttggg aggaaagggg tctaagtgca 5398

tagatgcttg ctgggaagcc taaaaggctc atccttgctt ttgtctcttc cctcca 5455

gga tca tct tct caa aat tcg agt gac aag cct gta gcc cac gtc gta 5503
 Ser Ser Ser Gln Asn Ser Ser Asp Lys Pro Val Ala His Val Val
 85 90 95

ggtaagattt ctttacatgt gccttgagaa tgaaggggca tgattttggg gggcgggttg 5563
 aggggtgtcg agccaggctg agaaaagaca gagctcttag agacagcacg tgagagtcag 5623
 agcagtgact caaaagcaag gcatcagggg gccacccggg acctcatagc caatgggatg 5683
 tggaagaca gaggggtgcag gaaccggaag tgaagtgtgg gtagctgctg aggctcagga 5743
 tgtggagtgt gaactaagag ggtgacactg actcaatcct ccccccccc ctca gca 5800
 Ala
 aac cac caa gtg gag gag cag ctg gag tgg ctg agc cag cgc gcc aac 5848
 Asn His Gln Val Glu Glu Gln Leu Glu Trp Leu Ser Gln Arg Ala Asn
 100 105 110
 gcc ctc ctg gcc aac ggc atg gat ctc aaa gac aac caa cta gtg gtg 5896
 Ala Leu Leu Ala Asn Gly Met Asp Leu Lys Asp Asn Gln Leu Val Val
 115 120 125
 cca gcc gat ggg ttg tac ctt gtc tac tcc cag gtt ctc ttc aag gga 5944
 Pro Ala Asp Gly Leu Tyr Leu Val Tyr Ser Gln Val Leu Phe Lys Gly
 130 135 140 145
 caa ggc tgc ccc gac tac gtg ctc ctc acc cac acc gtc agc cga ttt 5992
 Gln Gly Cys Pro Asp Tyr Val Leu Leu Thr His Thr Val Ser Arg Phe
 150 155 160
 gct atc tca tac cag gag aaa gtc aac ctc ctc tct gcc gtc aag agc 6040
 Ala Ile Ser Tyr Gln Glu Lys Val Asn Leu Leu Ser Ala Val Lys Ser
 165 170 175
 ccc tgc ccc aag gac acc cct gag ggg gct gag ctc aaa ccc tgg tat 6088
 Pro Cys Pro Lys Asp Thr Pro Glu Gly Ala Glu Leu Lys Pro Trp Tyr
 180 185 190
 gag ccc ata tac ctg gga gga gtc ttc cag ctg gag aag ggg gac caa 6136
 Glu Pro Ile Tyr Leu Gly Gly Val Phe Gln Leu Glu Lys Gly Asp Gln
 195 200 205
 ctc agc gct gag gtc aat ctg ccc aag tac tta gac ttt gcg gag tcc 6184
 Leu Ser Ala Glu Val Asn Leu Pro Lys Tyr Leu Asp Phe Ala Glu Ser
 210 215 220 225

ggg cag gtc tac ttt gga gtc att gct ctg tga aggggaatggg tgttcatcca 6237
Gly Gln Val Tyr Phe Gly Val Ile Ala Leu

230

235

ttctctaccc agccccact ctgacccctt tactctgacc cctttattgt ctactcctca 6297
gagccccag tctgtgtcct tctaacttag aaaggggatt atggctcaga gtccaactct 6357

gtgctcagag ctttcaacaa ctactcagaa acacaagatg ctgggacagt gacctggact 6417

gtgggcctct catgcaccac catcaaggac tcaaattgggc tttccgaatt cactggagcc 6477

tcgaatgtcc attcctgagt tctgcaaagg gagagtgggc aggttgccctc tgtctcagaa 6537

tgaggctgga taagatctca ggccttcta ccttcagacc tttccagact cttccctgag 6597

gtgcaatgca cagccttctt cacagagcca gccccctct atttatatatt gcaattatta 6657

tttattattt atttattatt tattttatttg cttatgaatg tattttatttg gaaggccggg 6717

gtgtcctgga ggaccagtg tgggaagctg tcttcagaca gacatgtttt ctgtgaaaac 6777

ggagctgagc tgtccccacc tggcctctct accttgttgc ctctctttt gcttatgttt 6837

aaaacaaaat atttatctaa cccaattgtc ttaataacgc tgatttggtg accaggctgt 6897

cgctacatca ctgaacctct gctccccacg ggagccgtga ctgtaattgc cctacagtca 6957

attgagagaa ataaagatcg cttggaaaag aaatgtgatt tctgtcttgg gatgaagtct 7017

gcatccatct ctttgcgag gcttaaagtc tctgggtcca gatctcagtc tttatacccc 7077

tgggccatta agacccccaa gacccccgtg gaacaaaagg cagccaacat ccctacctct 7137

cccccgaaa caggagccta accctaatta cctttgccct ggggcatggg aatttccac 7197

tctgggaatt c 7208

<210> 108

<211> 20

<212> DNA

<213> Artificial Sequence

<220>		
<223>	Synthetic	
<400>	108	
gagctttctgc	tggtggctg	20
<210>	109	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	109	
ccttgctgtc	ctcgctgagg	20
<210>	110	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	110	
tcatgggtgc	ttttctggag	20
<210>	111	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	111	
ctttctgtgc	tcatgggtgc	20
<210>	112	
<211>	20	
<212>	DNA	

<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	112	
gcggatcatg	ctttctgtgc	20
<210>	113	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	113	
gggaggccat	ttgggaactt	20
<210>	114	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	114	
cgaattttga	gaagatgatc	20
<210>	115	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	115	
ctcctccact	tggtgggttg	20
<210>	116	

<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	116	
cctgagatct	tatccagcct	20
<210>	117	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	117	
caattacagt	cacggctccc	20
<210>	118	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<400>	118	
cccttcattc	tcaaggcaca	20
<210>	119	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	119	
cacccctcaa	cccgccccc	20
<210>	120	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	

<220>		
<223>	Synthetic	
<400>	120	
agagctctgt	cttttctcag	20
<210>	121	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	121	
cactgctctg	actctcacgt	20
<210>	122	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	122	
atgaggtccc	gggtggcccc	20
<210>	123	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	123	
caccctctgt	ctttccacat	20
<210>	124	
<211>	20	
<212>	DNA	

<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	124	
ctccacatcc	tgagcctcag	20
<210>	125	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	125	
attgagtcag	tgtcaccctc	20
<210>	126	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	126	
gctggctcag	ccactccagc	20
<210>	127	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	127	
tctttgagat	ccatgccgtt	20
<210>	128	

<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	128	
aacccatcgg	ctggcaccac	20
<210>	129	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	129	
gtttgagctc	agccccctca	20
<210>	130	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	130	
ctcctcccag	gtatatgggc	20
<210>	131	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	131	
tgagttggtc	ccccctctcc	20

<210>	132	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	132	
caaagtagac	ctgcccggac	20
<210>	133	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	133	
acacccattc	ccttcacaga	20
<210>	134	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	134	
cataatcccc	tttctaagtt	20
<210>	135	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	135	

cacagagttg gactctgagc 20

<210> 136
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic

<400> 136
cagcatcttg tgtttctgag 20

<210> 137
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 137
cacagtccag gtcactgtcc 20

<210> 138
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 138
tgatggtggt gcatgagagg 20

<210> 139
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 139
 gtgaattcgg aaagcccatt 20

<210> 140
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 140
 cctgaccact ctccctttgc 20

<210> 141
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 141
 tgcacccccc aggccaccat 20

<210> 142
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 142
 gccgagggtcc atgtcgtacg c 21

<210> 143
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>

<223>	Synthetic	
<400>	143	
tcaagcagtg	ccaccgatcc	20
<210>	144	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	144	
agtgtcttct	gtgtgccaga	20
<210>	145	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	145	
gtgtcttctg	tgtgccagac	20
<210>	146	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	146	
tgtcttctgt	gtgccagaca	20
<210>	147	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	

<220>		
<223>	Synthetic	
<400>	147	
gtctttctgtg	tgccagacac	20
<210>	148	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	148	
tctttctgtgt	gccagacacc	20
<210>	149	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	149	
ctttctgtgtg	ccagacaccc	20
<210>	150	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	150	
ttctgtgtgc	cagacaccct	20
<210>	151	
<211>	20	
<212>	DNA	

<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	151	
tctgtgtgcc	agacacccta	20
<210>	152	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	152	
ctgtgtgcca	gacaccctat	20
<210>	153	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	153	
tgtgtgccag	acaccctatc	20
<210>	154	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	154	
tgtgccagac	accctatcctt	20
<210>	155	

<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	155	
gtgccagaca	ccctatcttc	20
<210>	156	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	156	
tgccagacac	cctatcttct	20
<210>	157	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	157	
gccagacacc	ctatcttctt	20
<210>	158	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	158	
ccagacaccc	tatcttcttc	20

<210>	159	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	159	
cagacaccct	atcttcttct	20
<210>	160	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	160	
agacacccta	tcttcttctc	20
<210>	161	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	161	
gacaccctat	cttcttctct	20
<210>	162	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	162	

acaccctatc ttcttctctc 20

<210> 163
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic

<400> 163
caccctatct tcttctctcc 20

<210> 164
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 164
gtcttctgtg tgccagac 18

<210> 165
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 165
tcttctgtgt gccagaca 18

<210> 166
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400>	166	
cttctgtgtg	ccagacac	18
<210>	167	
<211>	18	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	167	
ttctgtgtgc	cagacacc	18
<210>	168	
<211>	18	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	168	
tctgtgtgcc	agacaccc	18
<210>	169	
<211>	18	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	169	
ctgtgtgcca	gacaccct	18
<210>	170	
<211>	18	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	

<400> 170
tgtgtgccag acacccta 18

<210> 171
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 171
gtgtgccaga caccctat 18

<210> 172
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 172
tgtgccagac accctatc 18

<210> 173
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 173
tgccagacac cctatcctt 18

<210> 174
<211> 18
<212> DNA
<213> Artificial Sequence

<220>		
<223>	Synthetic	
<400>	174	
gccagacacc	ctatcttc	18
<210>	175	
<211>	18	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	175	
ccagacaccc	tatcttct	18
<210>	176	
<211>	18	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	176	
cagacaccct	atcttctt	18
<210>	177	
<211>	18	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	177	
agacacccta	tcttcttc	18
<210>	178	
<211>	18	
<212>	DNA	

<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	178	
gacaccctat	cttcttct	18
<210>	179	
<211>	18	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	179	
acaccctatc	ttcttctc	18
<210>	180	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	180	
agaggtttgg	agacaattac	20
<210>	181	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	181	
gaattaggaa	agaggtttgg	20
<210>	182	

<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	182	
cccaaacc	gaattaggaa	20
<210>	183	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	183	
tacccccaaa	cccaaacc	20
<210>	184	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	184	
gtactaacc	tacccccaaa	20
<210>	185	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	185	
ttccataccg	gtactaacc	20

<210> 186
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 186
 cccccactgc ttccataaccg 20

<210> 187
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 187
 ctttaaattt cccccactgc 20

<210> 188
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 188
 aagaccaaaa ctttaaattt 20

<210> 189
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 189

atcctccccc aagacaaaa

20

<210> 190

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 190

acctccatcc atcctccccc

20

<210> 191

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 191

ccctactttc acctccatcc

20

<210> 192

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 192

gaaaataccc ccctactttc

20

<210> 193

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400>	193	
aaacttccta	gaaaataccc	20
<210>	194	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	194	
tgagaccctt	aaacttccta	20
<210>	195	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	195	
aagaaaaagc	tgagaccctt	20
<210>	196	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	196	
ggagagagaa	aagaaaaagc	20
<210>	197	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	

<400>	197	
tgagccagaa	gaggttgagg	20
<210>	198	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	198	
attctctttt	tgagccagaa	20
<210>	199	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	199	
taagcccca	attctctttt	20
<210>	200	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	200	
gttccgaccc	taagcccca	20
<210>	201	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	

<220>		
<223>	Synthetic	
<400>	201	
ctaagcttgg	gttccgaccc	20
<210>	202	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	202	
gcttaaagtt	ctaagcttgg	20
<210>	203	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	203	
tggtcttggt	gcttaaagtt	20
<210>	204	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	204	
ttcgaagtgg	tggtcttggt	20
<210>	205	
<211>	20	
<212>	DNA	

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 205

aatcccaggt ttcgaagtgg

20

<210> 206

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 206

cacattcctg aatcccaggt

20

<210> 207

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 207

gtgcaggcca cacattcctg

20

<210> 208

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 208

gcatttcact gtgcaggcca

20

<210> 209

<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	209	
gtggttgcca	gcacttcact	20
<210>	210	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	210	
tgaattctta	gtggttgcca	20
<210>	211	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	211	
ggccccagtt	tgaattctta	20
<210>	212	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	212	
gagttctgga	ggccccagtt	20

<210>	213	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	213	
aggccccagt	gagttctgga	20
<210>	214	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	214	
tcaaagctgt	aggccccagt	20
<210>	215	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	215	
atgtcagga	tcaaagctgt	20
<210>	216	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	216	
cagattccag	atgtcagga	20

<210> 217
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 217
ccctgggtctc cagattccag 20

<210> 218
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 218
accaaaggct ccctgggtctc 20

<210> 219
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 219
tctggccaga accaaaggct 20

<210> 220
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400>	220	
cctgcagcat	tctggccaga	20
<210>	221	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	221	
cttctcaagt	cctgcagcat	20
<210>	222	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	222	
taggtgaggt	cttctcaagt	20
<210>	223	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	223	
tgtcaatttc	taggtgaggt	20
<210>	224	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		

<223>	Synthetic	
<400>	224	
ggtccacttg tgtcaatttc		20
<210>	225	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	225	
gaaggcctaa ggtccacttg		20
<210>	226	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	226	
ctggagagag gaaggcctaa		20
<210>	227	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	227	
ctggaaacat ctggagagag		20
<210>	228	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	

<220>		
<223>	Synthetic	
<400>	228	
tcaaggaagt	ctggaaacat	20
<210>	229	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	229	
gctccgtgtc	tcaaggaagt	20
<210>	230	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	230	
ataaatacat	tcattctgtaa	20
<210>	231	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	231	
ggtctcccaa	ataaatacat	20
<210>	232	
<211>	20	
<212>	DNA	

<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	232	
	aggatacccc ggtctcccaa	20
<210>	233	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	233	
	tgggtccccc aggatacccc	20
<210>	234	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	234	
	gctcctacat tgggtccccc	20
<210>	235	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	235	
	agccaaggca gctcctacat	20
<210>	236	

<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	236	
aacatgtctg agccaaggca		20
<210>	237	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	237	
tttcacggaa aacatgtctg		20
<210>	238	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	238	
tcagctccgt tttcacggaa		20
<210>	239	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	239	
agcctattgt tcagctccgt		20

<210>	240	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	240	
acatgggaac	agcctattgt	20
<210>	241	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	241	
atcaaaagaa	ggcacagagg	20
<210>	242	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	242	
gtttagacaa	cttaatcaga	20
<210>	243	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	243	

aatcagcatt gtttagacaa 20

<210> 244
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic

<400> 244
ttggtcacca aatcagcatt 20

<210> 245
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 245
tgagtgacag ttggtcacca 20

<210> 246
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 246
ggctcagcaa tgagtgacag 20

<210> 247
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400>	247	
attacagaca caactcccct		20
<210>	248	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	248	
tagtagggcg attacagaca		20
<210>	249	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	249	
cgccactgaa tagtagggcg		20
<210>	250	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	250	
ctttatttct cgccactgaa		20
<210>	251	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		

<223>	Synthetic	
<400>	251	
ctgaggggagc	gtctgctggc	20
<210>	252	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	252	
ccttgctgag	ggagcgtctg	20
<210>	253	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	253	
ctggtcctct	gctgtccttg	20
<210>	254	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	254	
cctctgctgt	ccttgctgag	20
<210>	255	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	

<220>		
<223>	Synthetic	
<400>	255	
ttctctccct	cttagctggt	20
<210>	256	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	256	
tccctcttag	ctggctctct	20
<210>	257	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	257	
tctgagggtt	gttttcaggg	20
<210>	258	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	258	
ctgtagttgc	ttctctccct	20
<210>	259	
<211>	20	
<212>	DNA	

<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	259	
	acctgcctgg cagcttgca	20
<210>	260	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	260	
	ggatgtggcg tctgagggtt	20
<210>	261	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	261	
	tgtgagagga agagaacctg	20
<210>	262	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	262	
	gaggaagaga acctgcctgg	20
<210>	263	

<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	263	
agccgtgggt	cagtatgtga	20
<210>	264	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	264	
tgggtcagta	tgtgagagga	20
<210>	265	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	265	
gagaggggtga	agccgtgggt	20
<210>	266	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	266	
tcatggtgtc	ctttccaggg	20

<210>	267	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	267	
ctttcagtgc	tcatggtgtc	20
<210>	268	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	268	
tcatgctttc	agtgctcatg	20
<210>	269	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	269	
acgtcccgga	tcatgctttc	20
<210>	270	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	270	

gctccacgtc ccggatcatg 20

<210> 271
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic

<400> 271
tcctcggcca gctccacgtc 20

<210> 272
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 272
gcgcctcctc ggccagctcc 20

<210> 273
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 273
aggaacaagc accgcctgga 20

<210> 274
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400>	274	
caagcaccgc ctggagccot		20
<210>	275	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	275	
aaggagaaga ggctgaggaa		20
<210>	276	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	276	
gaagaggctg aggaacaagc		20
<210>	277	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	277	
cctgccacga tcaggaagga		20
<210>	278	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		

<223>	Synthetic	
<400>	278	
cacgatcagg	aaggagaaga	20
<210>	279	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	279	
aagagcgtgg	tggcgccctgc	20
<210>	280	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	280	
cgtggtggcg	cctgccacga	20
<210>	281	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	281	
aagtgcagca	ggcagaagag	20
<210>	282	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	

<220>		
<223>	Synthetic	
<400>	282	
cagcaggcag	aagagcgtgg	20
<210>	283	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	283	
gatcactcca	aagtgcagca	20
<210>	284	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	284	
gggccgatca	ctccaaagtg	20
<210>	285	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	285	
gggccagagg	gctgattaga	20
<210>	286	
<211>	20	
<212>	DNA	

<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	286	
agagggctga	ttagagagag	20
<210>	287	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	287	
gctacaggct	tgctactcgg	20
<210>	288	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	288	
ctgactgcct	gggccagagg	20
<210>	289	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	289	
tacaacatgg	gctacaggct	20
<210>	290	

<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	290	
agccactgga	gctgcccctc	20
<210>	291	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	291	
ctggagctgc	ccctcagctt	20
<210>	292	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	292	
ttggcccggc	ggttcagcca	20
<210>	293	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	293	
ttggccagga	gggcattggc	20

<210> 294
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 294
 ccggcgggttc agccactgga 20

<210> 295
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 295
 ctcagctcca cgccattggc 20

<210> 296
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 296
 caggagggca ttggcccggc 20

<210> 297
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 297

ctccacgcca ttggccagga 20

<210> 298
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic

<400> 298
accagctggt tatctctcag 20

<210> 299
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 299
ctggttatct ctcagctcca 20

<210> 300
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 300
ccctctgatg gcaccaccag 20

<210> 301
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400>	301	
tgatggcacc	accagctggt	20
<210>	302	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	302	
tagatgaggt	acaggccctc	20
<210>	303	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	303	
aagaggacct	gggagtagat	20
<210>	304	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	304	
gaggtacagg	ccctctgatg	20
<210>	305	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		

<223>	Synthetic	
<400>	305	
cagccttggc	ccttgaagag	20
<210>	306	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	306	
gacctgggag	tagatgaggt	20
<210>	307	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	307	
ttggcccttg	aagaggacct	20
<210>	308	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	308	
tggtgtgggt	gaggagcaca	20
<210>	309	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	

<220>		
<223>	Synthetic	
<400>	309	
cggcgatgcg	gctgatggtg	20
<210>	310	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	310	
tgggtgagga	gcacatgggt	20
<210>	311	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	311	
tggtctggta	ggagacggcg	20
<210>	312	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	312	
atgcggctga	tggtgtgggt	20
<210>	313	
<211>	20	
<212>	DNA	

<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	313	
agaggagggtt	gaccttggtc	20
<210>	314	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	314	
tggtaggagac	ggcgatgcg	20
<210>	315	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	315	
aggttgacct	tggtctggtgta	20
<210>	316	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	316	
ggctcttgat	ggcagagagg	20
<210>	317	

<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	317	
	tcataccaggg cttggcctc	20
<210>	318	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	318	
	ttgatggcag agaggaggtt	20
<210>	319	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	319	
	agctggaaga cccctcccag	20
<210>	320	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	320	
	atagatgggc tcataccagg	20

<210>	321	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	321	
cggtcacccct	tctccagctg	20
<210>	322	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	322	
gaagacccct	cccagataga	20
<210>	323	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	323	
acccttctcc	agctggaaga	20
<210>	324	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	324	

tcggcaaagt cgagatagtc 20

<210> 325
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic

<400> 325
gggccgattg atctcagcgc 20

<210> 326
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 326
tagacctgcc cagactcggc 20

<210> 327
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 327
aaagtcgaga tagtcgggcc 20

<210> 328
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400>	328	
gcaatgatcc caaagtagac		20
<210>	329	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	329	
ctgcccagac tcggcaaagt		20
<210>	330	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	330	
cgtcctcctc acagggcaat		20
<210>	331	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	331	
ggaaggttgg atgttcgtcc		20
<210>	332	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		

<223>	Synthetic	
<400>	332	
tcctcacagg	gcaatgatcc	20
<210>	333	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	333	
gttgagggtg	tctgaaggag	20
<210>	334	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	334	
gttgatggtt	cgtcctcctc	20
<210>	335	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	335	
tttgagccag	aagaggttga	20
<210>	336	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	

<220>		
<223>	Synthetic	
<400>	336	
gaggcgtttg	ggaaggttgg	20
<210>	337	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	337	
gcccccaatt	ctctttttga	20
<210>	338	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	338	
gccagaagag	gttgagggtg	20
<210>	339	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	339	
gggttccgac	cctaagcccc	20
<210>	340	
<211>	20	
<212>	DNA	

<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	340	
	caattctctt tttgagccag	20
<210>	341	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	341	
	taaagttcta agcttgggtt	20
<210>	342	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	342	
	ccgaccctaa gcccccaatt	20
<210>	343	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	343	
	ggtggtcttg ttgcttaaag	20
<210>	344	

<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	344	
ttctaagctt	gggttccgac	20
<210>	345	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	345	
cccagggttc	gaagtgggtgg	20
<210>	346	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	346	
tcttggtgct	taaagttcta	20
<210>	347	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	347	
cacacattcc	tgaatcccag	20

<210>	348	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	348	
gtttcgaagt	ggtggtcttg	20
<210>	349	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	349	
cttcactgtg	caggccacac	20
<210>	350	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	350	
attcctgaat	cccaggtttc	20
<210>	351	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	351	

tagtggttgc cagcacttca 20

<210> 352
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic

<400> 352
cccagtttga attccttagtg 20

<210> 353
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 353
ctgtgcaggc cacacattcc 20

<210> 354
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 354
gtgagttctg gaggccccag 20

<210> 355
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400>	355	
gttgccagca cttcactgtg		20
<210>	356	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	356	
tttgaattct tagtggttgc		20
<210>	357	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	357	
aagctgtagg cccagtgag		20
<210>	358	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	358	
ttctggaggc cccagtttga		20
<210>	359	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		

<223>	Synthetic	
<400>	359	
agatgtcagg	gatcaaagct	20
<210>	360	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	360	
tggtctccag	attccagatg	20
<210>	361	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	361	
gtaggccccca	gtgagttctg	20
<210>	362	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	362	
gaaccaaagg	ctccctggctc	20
<210>	363	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	

<220>		
<223>	Synthetic	
<400>	363	
tcagggatca	aagctgtagg	20
<210>	364	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	364	
tccagattcc	agatgtcagg	20
<210>	365	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	365	
gcagcattct	ggccagaacc	20
<210>	366	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	366	
gtcttctcaa	gtcctgcagc	20
<210>	367	
<211>	20	
<212>	DNA	

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 367

aaaggctccc tggctctccag

20

<210> 368

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 368

caatttctag gtgaggtctt

20

<210> 369

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 369

attctggcca gaaccaaagg

20

<210> 370

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 370

aaggctccact tgtgtcaatt

20

<210> 371

<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	371	
	gagagaggaa ggcctaaggt	20
<210>	372	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	372	
	tctaggtgag gtcttctcaa	20
<210>	373	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	373	
	ccacttgtgt caatttctag	20
<210>	374	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	374	
	gtctggaaac atctggagag	20

<210>	375	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	375	
ccgtgtctca	aggaagtctg	20
<210>	376	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	376	
aggaaggcct	aaggtccact	20
<210>	377	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	377	
gagggagctg	gctccatggg	20
<210>	378	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	

<400>	378	
gaaacatctg gagagaggaa		20
<210>	379	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	379	
gtgcaaacaat aaatagaggg		20
<210>	380	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	380	
tctcaaggaa gtctggaaac		20
<210>	381	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	381	
aataaataat cacaagtgca		20
<210>	382	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		

<223>	Synthetic	
<400>	382	
gggctgggct	ccgtgtctca	20
<210>	383	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	383	
taccccggtc	tcccaaataa	20
<210>	384	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	384	
aacataaata	gaggagctg	20
<210>	385	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	385	
ttgggtcccc	caggatcccc	20
<210>	386	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	

<220>		
<223>	Synthetic	
<400>	386	
ataatcacaa gtgcaaacat		20
<210>	387	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	387	
aaggcagctc ctacattggg		20
<210>	388	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	388	
cggctctcca aataaataca		20
<210>	389	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	389	
aaacatgtct gagccaaggc		20
<210>	390	
<211>	20	

<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	390	
tccccccagga	tacccccggtc	20
<210>	391	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	391	
agctcctaca	ttgggtcccc	20
<210>	392	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	392	
tgtctgagcc	aaggcagctc	20
<210>	393	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	393	
cagcctattg	ttcagctccg	20

<210>	394	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	394	
	agaaggcaca gaggccaggg	20
<210>	395	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	395	
	ttttcacgga aaacatgtct	20
<210>	396	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	396	
	tattgttcag ctccgttttc	20
<210>	397	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	397	

aaaaacataa tcaaaagaag 20

<210> 398
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic

<400> 398
cagataaata ttttaaaaaa 20

<210> 399
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 399
tacatgggaa cagcctattg 20

<210> 400
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 400
tttagacaac ttaatcagat 20

<210> 401
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400>	401	
cataatcaaa agaaggcaca		20
<210>	402	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	402	
accaaadcag cattgttttag		20
<210>	403	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	403	
aaatatttta aaaaacataa		20
<210>	404	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	404	
gagtgacagt tggcaccaa		20
<210>	405	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		

<223>	Synthetic	
<400>	405	
	acaacttaatc agataaata	20
<210>	406	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	406	
	cagaggctca gcaatgagtg	20
<210>	407	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	407	
	atcagcattg tttagacaac	20
<210>	408	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	408	
	agggcgatta cagacacaac	20
<210>	409	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	

<220>		
<223>	Synthetic	
<400>	409	
acagttggtc	accaaatacag	20
<210>	410	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	410	
tcgccactga	atagtagggc	20
<210>	411	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	411	
gctcagcaat	gagtgacagt	20
<210>	412	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	412	
agcaaacttt	atttctcgcc	20
<210>	413	
<211>	20	
<212>	DNA	

<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	413	
	gattacagac acaactcccc	20
<210>	414	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	414	
	actgaatagt agggcgatta	20
<210>	415	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	415	
	actttatttc tcgccactga	20
<210>	416	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	416	
	gctgtccttg ctgagggagc	20
<210>	417	

<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	417	
cttagctggt cctctgctgt		20
<210>	418	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	418	
gttgcttctc tccctcttag		20
<210>	419	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	419	
tggcgtctga gggttgtttt		20
<210>	420	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	420	
agagaacctg cctggcagct		20

<210>	421	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	421	
	cagtatgtga gaggaagaga	20
<210>	422	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	422	
	ggtgaagccg tgggtcagta	20
<210>	423	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	423	
	agtgctcatg gtgtcctttc	20
<210>	424	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	424	

ccggatcatg ctttcagtgc 20

<210> 425
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic

<400> 425
ggccagctcc acgtcccgga 20

<210> 426
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 426
ggccccctg tcttcttggg 20

<210> 427
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 427
ggctgaggaa caagcaccgc 20

<210> 428
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400>	428	
tcaggaagga	gaagaggctg	20
<210>	429	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	429	
tggcgctgc	cacgatcagg	20
<210>	430	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	430	
ggcagaagag	cgtggtggcg	20
<210>	431	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	431	
ctccaaagtg	cagcaggcag	20
<210>	432	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		

<223>	Synthetic	
<400>	432	
gctgattaga gagaggtccc		20
<210>	433	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	433	
tgccctggggcc agagggctga		20
<210>	434	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	434	
gctgcccctc agcttgaggg		20
<210>	435	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	435	
ggttcagcca ctggagctgc		20
<210>	436	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	

<220>		
<223>	Synthetic	
<400>	436	
gggcattggc	ccggcggttc	20
<210>	437	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	437	
cgccattggc	caggagggca	20
<210>	438	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	438	
tatctctcag	ctccacgccca	20
<210>	439	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	439	
gcaccaccag	ctgggttatct	20
<210>	440	
<211>	20	
<212>	DNA	

<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	440	
acaggccctc	tgatggcacc	20
<210>	441	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	441	
gggagtagat	gaggtacagg	20
<210>	442	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	442	
ccttgaagag	gacctgggag	20
<210>	443	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	443	
gaggagcaca	tgggtggagg	20
<210>	444	

<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	444	
gctgatggtg tgggtgagga		20
<210>	445	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	445	
ggagacggcg atgcggctga		20
<210>	446	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	446	
gaccttggtc tggtaggaga		20
<210>	447	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	447	
ggcagagagg aggttgacct		20

<210>	448	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	448	
tgggctcata	ccagggett	20
<210>	449	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	449	
cccctcccag	atagatgggc	20
<210>	450	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	450	
tgagtcggtc	acccttctcc	20
<210>	451	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	451	

gattgatctc agcgctgagt 20

<210> 452
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic

<400> 452
cgagatagtc gggccgattg 20

<210> 453
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 453
caaagtagac ctgcccagac 20

<210> 454
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 454
acagggcaat gatcccaaag 20

<210> 455
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400>	455	
atgttcgtcc tcctcacagg		20
<210>	456	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	456	
gtttggaag gttggatgtt		20
<210>	457	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	457	
aagaggttga ggggtgtctga		20
<210>	458	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	458	
ctcttttttga gccagaagag		20
<210>	459	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		

<223>	Synthetic	
<400>	459	
cctaagcccc	caattctctt	20
<210>	460	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	460	
agcttggggtt	ccgaccctaa	20
<210>	461	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	461	
ttgcttaaag	ttctaagctt	20
<210>	462	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	462	
gaagtgggtgg	tcttggtgct	20
<210>	463	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	

<220>		
<223>	Synthetic	
<400>	463	
tgaatcccag	gtttcgaagt	20
<210>	464	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	464	
caggccacac	attcctgaat	20
<210>	465	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	465	
cagcacttca	ctgtgcaggc	20
<210>	466	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	466	
attcttagtg	gttgccagca	20
<210>	467	
<211>	20	
<212>	DNA	

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 467

gaggccccag tttgaattct

20

<210> 468

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 468

ccccagtgag ttctggaggc

20

<210> 469

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 469

gatcaaagct gtaggccccca

20

<210> 470

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 470

attccagatg tcagggatca

20

<210> 471

<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	471	
ctccctgggc	tccagattcc	20
<210>	472	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	472	
ggccagaacc	aaaggctccc	20
<210>	473	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	473	
gtcctgcagc	attctggcca	20
<210>	474	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	474	
gtgaggtctt	ctcaagtcct	20

<210>	475	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	475	
tgtgtcaatt	tctaggtgag	20
<210>	476	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	476	
ggcctaagggt	ccacttgtgt	20
<210>	477	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	477	
atctggagag	aggaaggcct	20
<210>	478	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	478	

aggaagtctg gaaacatctg 20

<210> 479
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic

<400> 479
gggctccgtg tctcaaggaa 20

<210> 480
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 480
aaatagaggg agctgggtcc 20

<210> 481
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 481
cacaagtgca aacataaata 20

<210> 482
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400>	482	
tcccaaataa	atacattcat	20
<210>	483	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	483	
caggataccc	cggtctccca	20
<210>	484	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	484	
ctacattggg	tccccagga	20
<210>	485	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	485	
gagccaaggc	agctcctaca	20
<210>	486	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		

<223>	Synthetic	
<400>	486	
acggaaaaca	tgtctgagcc	20
<210>	487	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	487	
ttcagctccg	ttttcacgga	20
<210>	488	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	488	
gggaacagcc	tattgttcag	20
<210>	489	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	489	
tcaaaagaag	gcacagaggc	20
<210>	490	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	

<220>		
<223>	Synthetic	
<400>	490	
ttttaaaaaa	cataatcaaa	20
<210>	491	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	491	
ttaatcagat	aaatatttta	20
<210>	492	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	492	
cattgttttag	acaacttaat	20
<210>	493	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	493	
tggtcaccaa	atcagcattg	20
<210>	494	
<211>	20	
<212>	DNA	

<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	494	
	gcaatgagtg acagttggtc	20
<210>	495	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	495	
	gggagcagag gctcagcaat	20
<210>	496	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	496	
	atagtagggc gattacagac	20
<210>	497	
<211>	20	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Synthetic	
<400>	497	
	atttctcgcc actgaatagt	20
<210>	498	

<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic
<400> 498
ctgattagag agaggtccc

20

<210> 499
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 499
ctgattagag agaggtcc

20

<210> 500
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 500
tgagtgtctt ctgtgtgcca

20

<210> 501
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 501
gagtgtcttc tgtgtgccag

20

<210> 502
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 502
caccaagctg cggccccaa

<210> 503
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 503
tccgtcatcg ctcttcaggg